

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269



Scaled data based on original data using
LM-79-2024 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P1059175

Luminaire Tested: S123RDRP-S340D835-X4F0-XX-UDD-BVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1059175
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-30)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123RDRP-S340D835-X4F0-XX-UDD-BVL-B
Description: DEFINE 3 BLACK REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

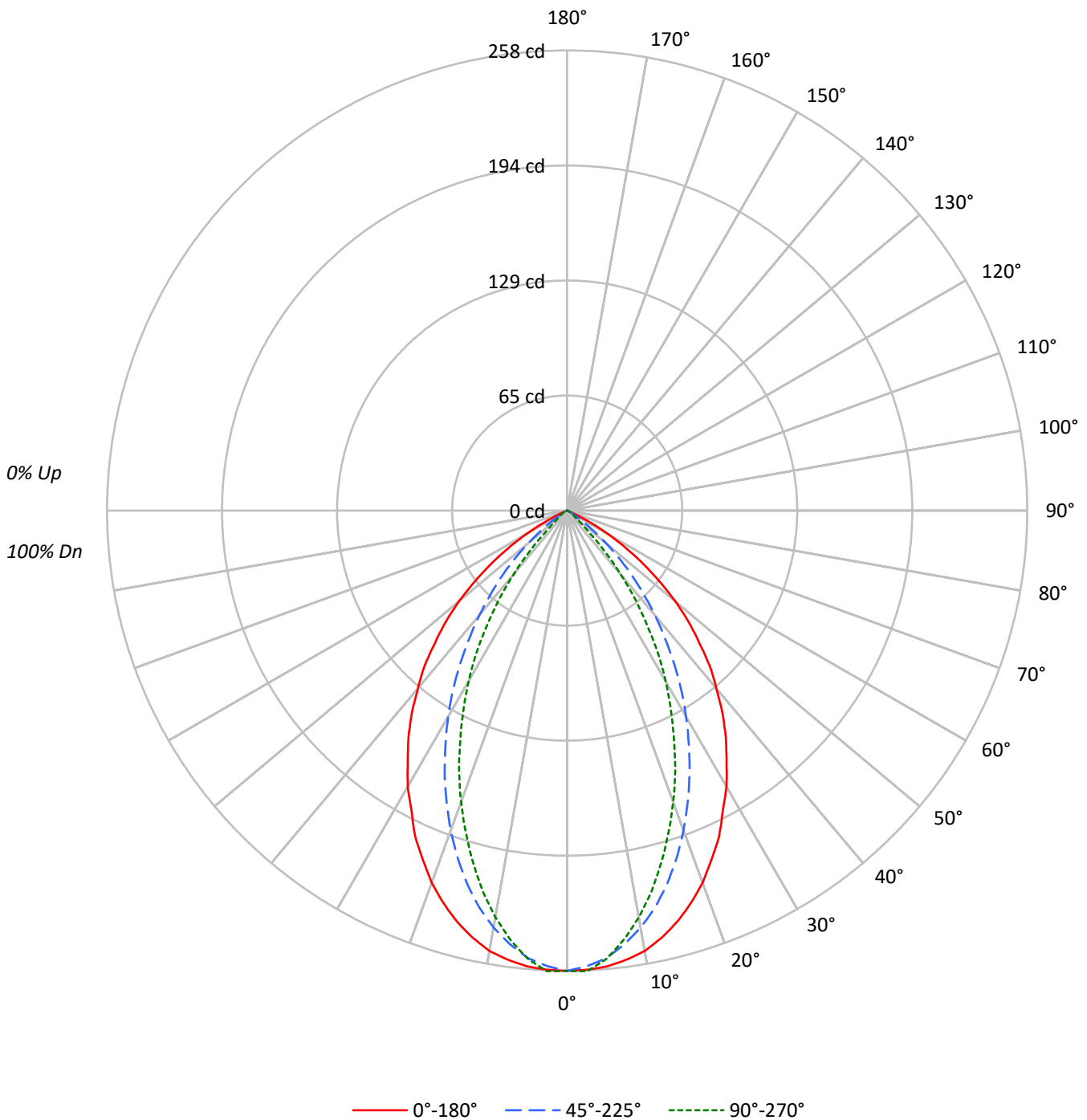
Lumens per Lamp: N/A
Luminaire Lumens: 294.5 lumens
Efficiency: N/A
Efficacy: 23.6 lumens/watt
Spacing Criteria (0/90/45): 1.06 / 0.81 / 0.94
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 12.5
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT

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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20	
RC	80				70				50				30				10	0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	113	110	107	104	110	107	105	103	103	101	100	100	98	97	96	95	94	92
2	106	101	96	92	104	99	95	91	96	92	89	93	90	87	90	87	85	84
3	100	92	87	82	98	91	86	82	88	84	80	86	82	79	83	80	78	76
4	94	85	79	74	92	84	78	74	82	77	73	80	75	72	78	74	71	69
5	88	79	72	67	86	78	71	67	76	70	66	74	69	65	72	68	65	63
6	83	73	66	61	81	72	66	61	70	65	60	69	64	60	67	63	60	58
7	78	68	61	56	77	67	60	56	66	60	56	64	59	55	63	58	55	53
8	74	63	56	52	72	62	56	51	61	55	51	60	55	51	59	54	51	49
9	70	59	52	48	68	58	52	48	57	52	47	56	51	47	55	51	47	46
10	66	55	49	44	65	55	48	44	54	48	44	53	48	44	52	47	44	42

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3031	3031	3031
5°	3023	2969	2974
10°	2989	2831	2760
15°	2901	2633	2481
20°	2774	2384	2172
25°	2612	2105	1836
30°	2423	1809	1500
35°	2222	1495	1114
40°	1994	1173	714
45°	1739	855	297
50°	1443	510	113
55°	1065	213	86
60°	643	78	49
65°	172	47	22
70°	0	14	14
75°	0	0	18
80°	0	0	0
85°	0	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 1739 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	23.8	8.1
10°-20°	61.3	20.8
20°-30°	76.4	25.9
30°-40°	68.3	23.2
40°-50°	43.1	14.6
50°-60°	18.1	6.1
60°-70°	3.4	1.2
70°-80°	0.1	0.0
80°-90°	0.0	0.0
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	161.5	54.8
0°-40°	229.9	78.0
0°-60°	291.0	98.8
0°-90°	294.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	294.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	258	258	258	258	258	
5°	256	256	252	253	252	24
15°	239	233	217	207	204	67
25°	202	185	162	148	142	92
35°	155	133	104	86	78	97
45°	105	82	52	27	18	81
55°	52	36	10	4	4	47
65°	6	5	2	1	1	9
75°	0	0	0	0	0	0
85°	0	0	0	0	0	0
90°	0	0	0	0	0	0



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	258.1	258.1	258.1	258.1	258.1
2.5°	257.7	258.1	255.6	258.1	258.5
5°	256.5	256.1	251.9	252.7	252.3
7.5°	254.0	252.7	245.2	243.6	242.8
10°	250.7	247.3	237.4	233.2	231.5
12.5°	245.2	240.7	227.8	221.1	218.6
15°	238.6	232.8	216.6	207.4	204.1
17.5°	230.7	222.4	204.1	194.1	189.1
20°	222.0	210.3	190.8	178.7	173.8
22.5°	211.6	198.7	176.7	163.8	158.4
25°	201.6	185.4	162.5	148.4	141.7
27.5°	189.1	172.1	147.6	133.0	125.9
30°	178.7	159.2	133.4	117.2	110.6
32.5°	166.3	145.9	118.9	101.0	94.8
35°	155.0	132.6	104.3	85.6	77.7
37.5°	143.0	119.7	89.8	70.2	62.8
40°	130.1	106.8	76.5	54.9	46.6
42.5°	118.5	93.9	63.2	40.7	32.4
45°	104.7	81.5	51.5	27.4	17.9
47.5°	92.3	69.8	39.1	15.4	9.6
50°	79.0	57.8	27.9	7.9	6.2
52.5°	65.3	46.1	18.3	5.4	5.0
55°	52.0	35.7	10.4	4.2	4.2
57.5°	39.1	25.8	5.4	3.3	2.9
60°	27.4	17.0	3.3	2.5	2.1
62.5°	15.8	10.0	2.5	1.7	1.7
65°	6.2	4.6	1.7	0.8	0.8
67.5°	0.4	1.2	0.8	0.4	0.4
70°	0.0	0.0	0.4	0.4	0.4
72.5°	0.0	0.0	0.4	0.4	0.4
75°	0.0	0.0	0.0	0.0	0.4
77.5°	0.0	0.0	0.0	0.0	0.0
80°	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0



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CIE UGR TABLE:

Reflectances:											
Ceiling		0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
Wall		0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
Reference plane		0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Room dimensions		Viewed crosswise					Viewed endwise				
X=2H	Y=2H	9.05	10.23	9.41	10.54	10.85	0.00	0.00	0.00	0.00	0.00
	3H	8.89	9.92	9.27	10.25	10.62	0.00	0.00	0.00	0.00	0.00
	4H	8.80	9.76	9.21	10.11	10.50	0.00	0.00	0.00	0.00	0.00
	6H	8.71	9.58	9.13	9.96	10.35	0.00	0.00	0.00	0.00	0.00
	8H	8.66	9.48	9.09	9.87	10.28	0.00	0.00	0.00	0.00	0.00
	12H	8.61	9.40	9.04	9.78	10.21	0.00	0.00	0.00	0.00	0.00
4H	2H	8.81	9.76	9.21	10.11	10.50	0.00	0.00	0.00	0.00	0.00
	3H	8.64	9.41	9.06	9.82	10.22	0.00	0.00	0.00	0.00	0.00
	4H	8.54	9.22	8.98	9.64	10.09	0.00	0.00	0.00	0.00	0.00
	6H	8.44	9.03	8.91	9.48	9.95	0.00	0.00	0.00	0.00	0.00
	8H	8.38	8.92	8.85	9.37	9.84	0.00	0.00	0.00	0.00	0.00
	12H	8.32	8.80	8.81	9.28	9.76	0.00	0.00	0.00	0.00	0.00
8H	4H	8.38	8.92	8.85	9.37	9.84	0.00	0.00	0.00	0.00	0.00
	6H	8.26	8.70	8.77	9.20	9.69	0.00	0.00	0.00	0.00	0.00
	8H	8.19	8.59	8.72	9.10	9.60	0.00	0.00	0.00	0.00	0.00
	12H	8.13	8.48	8.65	8.98	9.56	0.00	0.00	0.00	0.00	0.00
12H	4H	8.32	8.80	8.81	9.28	9.76	0.00	0.00	0.00	0.00	0.00
	6H	8.19	8.59	8.72	9.10	9.60	0.00	0.00	0.00	0.00	0.00
	8H	8.13	8.48	8.65	8.98	9.56	0.00	0.00	0.00	0.00	0.00